Bellwork Alg 2B Monday, October 2, 2017

Use these functions: $f(x) = x^2 + 3x - 5$ $g(w) = 3w^2 - 7w$

1. Find $g(2)$ then evaluate $f(x)$ using this result.

2. Find $g(-5k)$

3. Find $f(a-2)$

4. $D(-6,3)$ $E(-1,-1)$ $F(-1,3)$

The coordinates of points D, E, and F in the $xy-plane$ are given above. What is the perimeter of $\triangle DEF$?

A. 12 B. 20 C. $9+\sqrt{17}$ D. $9+\sqrt{41}$ E. $\sqrt{150}$

5. Committee A has 18 members and Committee B has 3 members. How many members from Committee A must switch to Committee B so that Committee A will have twice as many members as Committee B?

A. 4 B. 6 C. 7 D. 11 E. 15

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Answers

Use these functions: $f(x) = x^2 + 3x - 5$ $g(w) = 3w^2 - 7w$

1. Find $g(2)$ then evaluate $f(x)$ using this result.

$g(2) = 3(2)^2 - 7(2) = 3(4) - 7(2) = 12 - 14 = -2$

$f(-2) = (-2)^2 + 3(-2) - 5 = 4 - 6 - 5 = -7$

2. Find $g(-5k)$

$g(-5k) = 3(-5k)^2 - 7(-5k)$

$= 3(25k^2) - 7(-5k)$

$g(-5k) = 75k^2 + 35k$

3. Find $f(a-2)$

$f(a-2) = (a-2)^2 + 3(a-2) - 5$

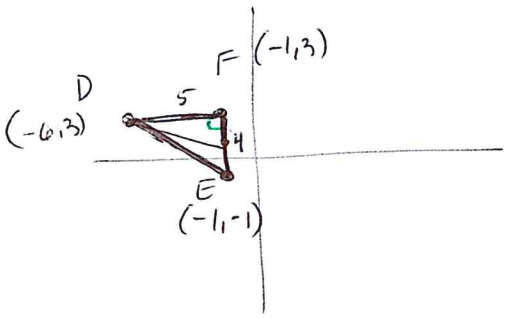
$= a^2 - 4a + 4 + 3a - 6 - 5$

$f(a-2) = a^2 - a - 7$

4. $D(-6,3)$ $E(-1,-1)$ $F(-1,3)$

The coordinates of points D, E, and F in the *xy – plane* are given above. What is the perimeter of $\triangle DEF$?

A. 12 B. 20 C. $9 + \sqrt{17}$ D. $9 + \sqrt{41}$ E. $\sqrt{150}$



$DF = 5$

$EF = 4$

$DE = \sqrt{41}$

perimeter $\triangle DEF$

$= 5 + 4 + \sqrt{41}$

$= 9 + \sqrt{41}$

DE:

$x^2 = 4^2 + 5^2$

$x^2 = 16 + 25$

$x^2 = 41$

$x = \sqrt{41}$

5. Committee A has 18 members and Committee B has 3 members. How many members from Committee A must switch to Committee B so that Committee A will have twice as many members as Committee B?

A. 4 B. 6 C. 7 D. 11 E. 15

	A	B
START WITH	18	3
	17	4
	16	5
	15	6
A has twice as many as B →	14	7

4 members moved from A to B